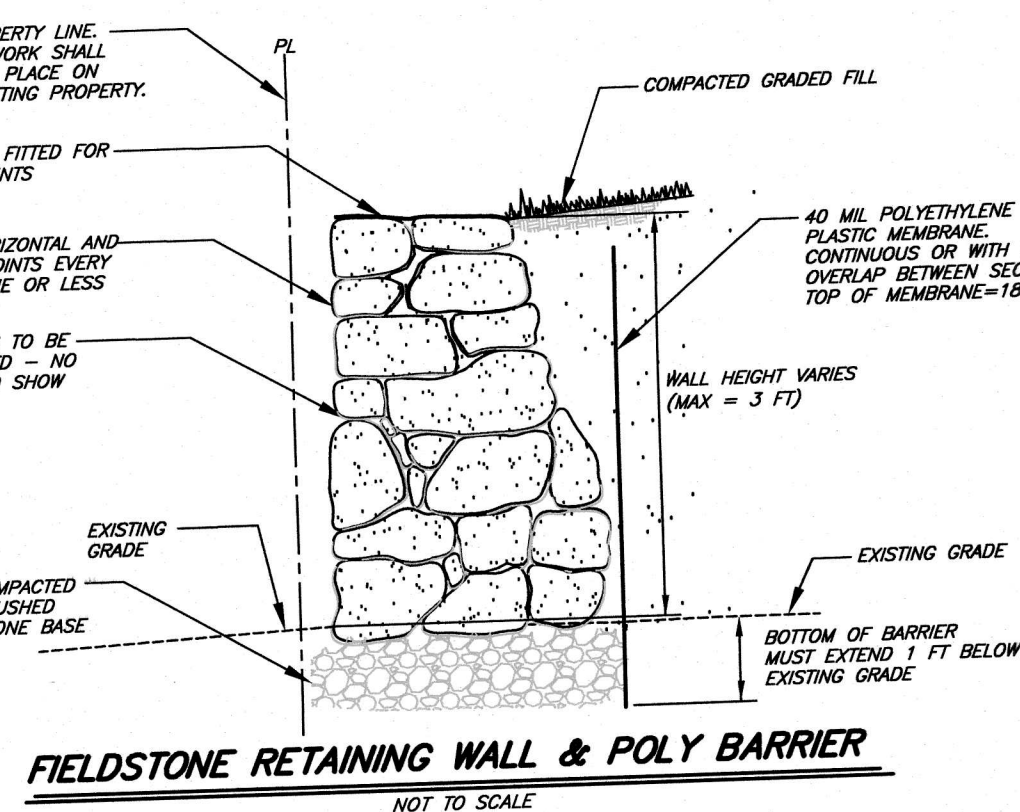
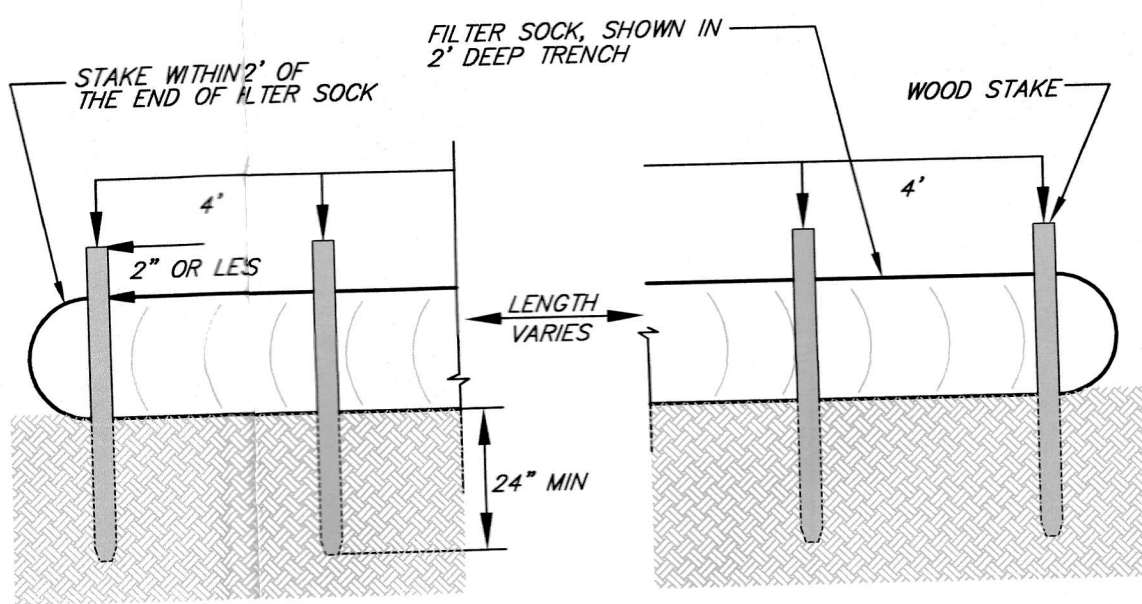


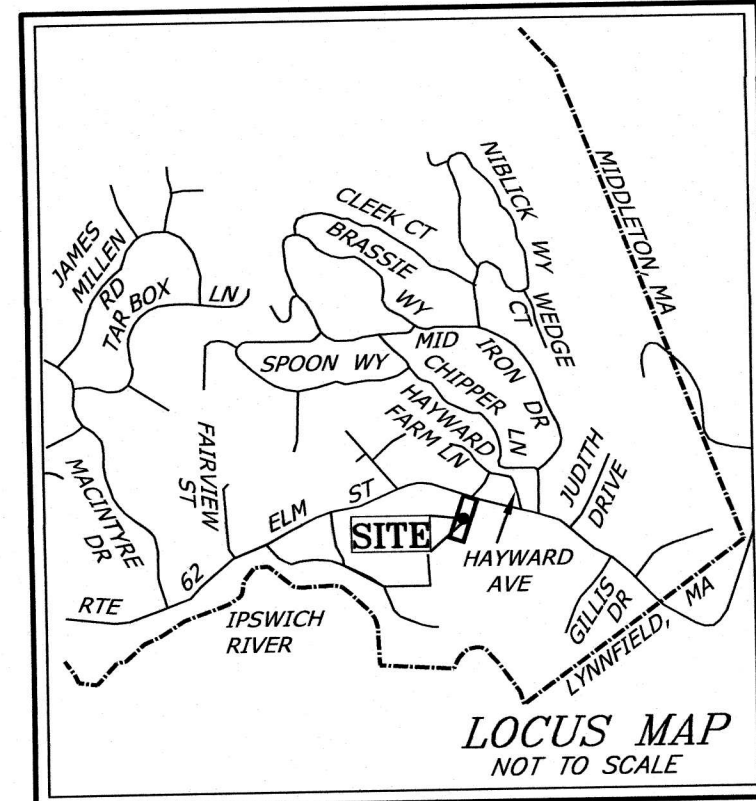
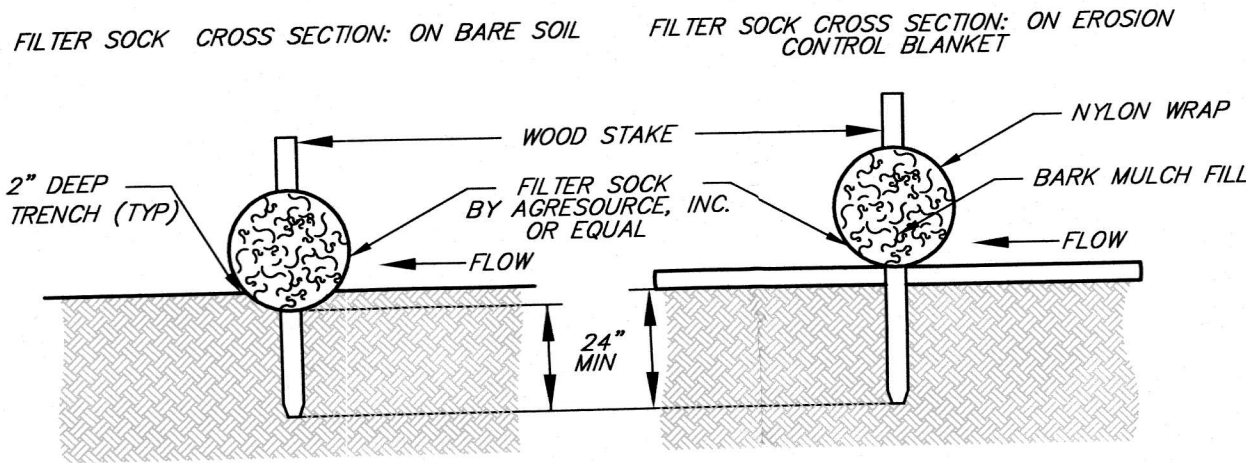
PROFILE
NOT TO SCALE



FIELDSTONE RETAINING WALL & POLY BARRIER
NOT TO SCALE

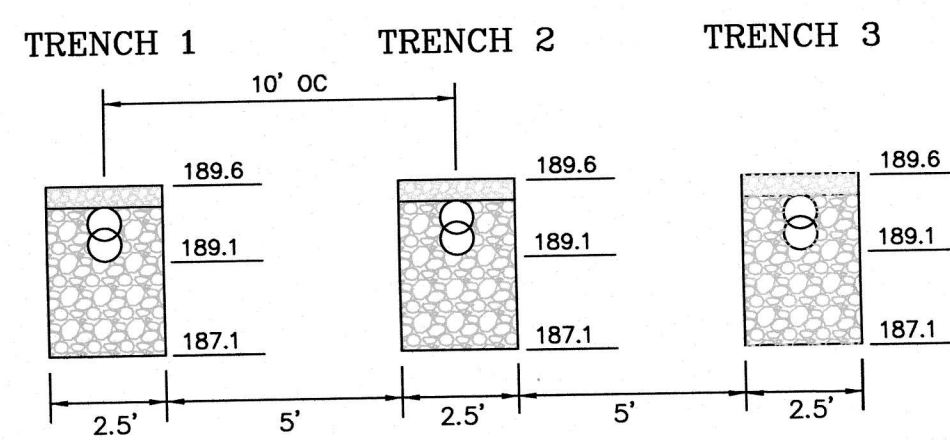


EROSION CONTROL - FILTER SOCK DETAIL
NOT TO SCALE



SCHEDULE OF ELEVATIONS

FINISH GROUND	DESIGN	AS-BUILT
EXISTING GROUND	189.98	
PROPOSED SPOT GRADE	189.81	
TEST HOLE	189.64	
WATER	189.47	
ELECTRIC	189.30	
GAS	189.26	
SILT FENCE / LIMIT OF WORK	189.10	
WETLAND FLAG	187.10	



TRENCH CROSS-SECTION
NOT TO SCALE

SOIL TEST DATA:

DATE: 11/9/2021 PERFORMED BY: MIKE DIMODICA, SE #586
WITNESSED BY: ROBERT BRACEY (NORTH READING BOARD OF HEALTH)

TP-1	188.4
"A" 0"-72" FILL LS	183.1
10 YR 3/3	ESHW
"B" 72"-84" L SAND	
7.5 YR 6/4	
"C" 84"-140" SAND	
10 YR 6/6	
MOTTLES @ 64"	
GWO @ 105"	

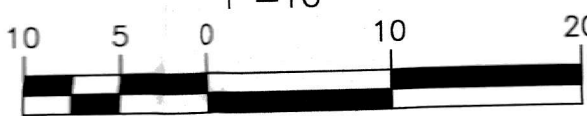
PERCOLATION TEST DATA

PERC. NO.	DATE	DEPTH	STABILIZED RATE	WITNESSED BY
P-1	11/9/2021	80"	3 MPI	ROBERT BRACEY

DESIGN INFORMATION - TITLE 5

DESIGN FLOW: 4 BEDROOMS X 110 GAL/BR = 440 GPD
DESIGN PERCOLATION RATE 3 MPI
DESIGN LOAD FACTOR = 0.74 GAL/SF
LEACHING AREA REQUIRED = 440/.74 = 595 SF
LEACHING AREA & FLOW CAPACITY PROVIDED
WALL AREA = 2' H X 2 WALLS X 32' L X 3 TRENCHES = 384 SF
BOTTOM AREA = 2.5' W X 32' L X 3 TRENCHES = 240 SF
TOTAL LEACHING AREA = 384 SF + 240 SF = 624 SF
TOTAL GPD = LEACHING AREA 624 SF X 0.74 GAL/SF = 461 GPD
SEPTIC TANK CAPACITY:
4 BEDROOMS X 110 GAL/BR = 440 GPD
SEPTIC TANK CAPACITY REQUIRED: 440 GPD X 200% = 880 GAL OR 1,500 MIN
SEPTIC TANK CAPACITY PROVIDED: 1,500 GAL
FIRST COMPARTMENT VOLUME = 940 GAL
SECOND COMPARTMENT VOLUME = 560 GAL

PLAN



MAP 213/78
LOT 057
47,480 S.F.±
1.09 AC.±

MAP 213/78
LOT 056
JAMES & GERALD E DALE
42 ELM STREET
N. READING, MA 01864
BK: 24476 PG: 195

MAP 213/78
LOT 102
DENNIS & JEAN DOTOLLO
4 HAYWARD FARMS LANE
N. READING, MA 01864
BK: 20227 PG: 192

MAP 213/78
LOT 101
PAUL & MEGHAN TASSINARI
2 HAYWARD FARMS LANE
N. READING, MA 01864
BK: 79674 PG: 394

MAP 213/78
LOT 007
MICHAEL O'BRIEN
58 ASH STREET
WEST NEWBURY, MA 01985
BK: 39312 PG: 535

MAP 213/78
LOT 058
LAURINE & GREGORY PINEO
38 ELM STREET
N. READING, MA 01864
BK: 54520 PG: 42

BUFFER ZONE IMPERVIOUS & DISTURBED AREA TABULATION			
	EXISTING	PROPOSED	ALLOWED
TOTAL IMPERVIOUS AREA WITHIN 100' BUFFER ZONE	5,105 SF (12.4%)	4,494 SF (10.9%)	9,053 SF (22%)
TOTAL PROPOSED DISTURBANCE WITHIN 100' BUFFER ZONE		6,950 SF (23.5%)	30,862 SF (75%)
TOTAL AREA WITHIN 100' BUFFER ZONE: 41,150 SQ FT			
IMPERVIOUS AREA INCLUDES ALL STRUCTURES AND DRIVEWAYS (PAVED & GRAVEL)			

NOTES:

- ELEVATIONS REFER TO NVD-1928 BENCHMARK TO BE SET WITHIN 75' OF SYSTEM PRIOR TO CONSTRUCTION. THE SYSTEM INCLUDING THE SEPTIC TANK SHALL BE STAKED IN THE FIELD AND BENCHMARK SET BY DESIGN ENGINEER.
- ALL CONSTRUCTION TO CONFORM TO THE REQUIREMENTS OF TITLE 5 OF THE MASSACHUSETTS STATE ENVIRONMENTAL CODE AND THE NORTH READING BOARD OF HEALTH REGULATIONS (WHERE APPLICABLE).
- FINISH GRADING SHALL BE COMPLETED IN ACCORDANCE WITH THE DETAILS AS SHOWN HEREON.
- HEAVY CONSTRUCTION EQUIPMENT SHALL NOT BE ALLOWED TO PASS OVER THE LEACHING AREA.
- ALL WATERTIGHT JOINT PIPING SHALL CONSIST OF POLYVINYL CHLORIDE (PVC) SCHEDULE 40 PIPE OR AS SPECIFIED.
- THE FIRST TWO FEET OF HEADER PIPES TO THE LEACHING AREA SHALL BE INSTALLED LEVEL.
- LIMIT OF EXCAVATION: ALL TOPSOIL, ORGANIC SUBSOIL, LARGE Boulders AND DELETERIOUS MATERIAL SHALL BE EXCAVATED AND REMOVED FROM THE LEACHING AREAS AND TO A DISTANCE OF 5 FEET FROM THE PERIMETER OF SAID AREAS. BACKFILL AS REQUIRED WITH SUITABLE FILL.
- ALL FILL MATERIAL SHALL CONFORM TO THE REQUIREMENTS OF REGULATION 15.255 OF TITLE 5 OF THE MASS. STATE ENVIRONMENTAL CODE 310 CMR. ALL FILL SHALL BE APPROVED BY THE DESIGN ENGINEER AND THE AGENT FOR THE BOARD OF HEALTH.
- ALL PRECAST STRUCTURES SHALL BE SHEA CONCRETE PRODUCTS OR APPROVED EQUAL.
- THERE ARE NO KNOWN EXISTING WELLS OR EXISTING SUBSURFACE DISPOSAL SYSTEMS WITHIN 100 FEET OF THE PROPOSED SYSTEM.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION, SIZE AND ELEVATION OF ALL EXISTING UTILITIES SHOWN OR NOT SHOWN ON THESE PLANS PRIOR TO ANY CONSTRUCTION. THE DESIGN ENGINEER (MEISNER BREM CORPORATION) SHALL BE NOTIFIED IN WRITING OF ANY UTILITIES FOUND INTERFERING WITH THE PROPOSED CONSTRUCTION SO THAT REMEDIAL ACTION MAY BE TAKEN BEFORE PROCEEDING WITH THE WORK.
- THE OWNER AND/OR CONTRACTOR SHALL VERIFY ALL ZONING REQUIREMENTS FOR CONFORMANCE PRIOR TO ANY CONSTRUCTION. THE LOCATION OF ALL STRUCTURES IS THE RESPONSIBILITY OF THE OWNER AND NOT THE SDDS DESIGNER. THE OWNER SHOULD UTILIZE THE SERVICES OF A PROFESSIONAL LAND SURVEYOR TO LOCATE ALL PROPOSED STRUCTURES, INCLUDING BUT NOT LIMITED TO THE LEACH FIELD, SEPTIC TANK, DWELLING, AND WALLS.
- PROPERTY SURVEY PERFORMED BY MEISNER BREM CORPORATION IN OCTOBER, 2021
- COMPLIANCE WITH ALL APPLICABLE REGULATIONS OF THE BOARD OF HEALTH, CONSERVATION COMMISSION, AND OTHER TOWN/CITY AGENCIES IS MANDATORY AND IS THE RESPONSIBILITY OF THE OWNER. THE OWNER IS HEREBY NOTIFIED THAT ANY CONSTRUCTION WITHIN 100 FEET OF A REGULATED WETLAND TYPICALLY REQUIRES AN ORDER OF CONDITIONS FROM THE CONSERVATION COMMISSION OR MASS. D.E.P. PER 310 CMR ET. SEQ.
- ANY ALTERATION TO THE APPROVED SYSTEM DESIGN MUST BE APPROVED BY THE DESIGN ENGINEER AND SUBMITTED TO THE CARLISLE BOARD OF HEALTH FOR APPROVAL PRIOR TO CONSTRUCTION.
- THE SYSTEM SHALL BE INSPECTED DURING CONSTRUCTION BY A REPRESENTATIVE OF THE DESIGN ENGINEER AND THE AGENT FOR THE CARLISLE BOARD OF HEALTH. A CERTIFIED PROFESSIONAL LOCATION PLAN WITH THE ELEVATION OF THE TOP OF THE FOUNDATION SHALL BE PROVIDED PRIOR TO ANY INSPECTIONS. THE DESIGN ENGINEER SHALL PREPARE INSTALLATION AND FINAL AS-BUILT PLANS INCLUDING A CERTIFICATION THAT THE SYSTEM HAS BEEN LOCATED AND CONSTRUCTED IN COMPLIANCE WITH THE TERMS OF THE DISPOSAL WORKS CONSTRUCTION PERMIT IF REQUIRED.
- TOPOGRAPHIC INFORMATION SURVEYED BY MEISNER BREM CORP.
- ALL FOUNDATION WALLS SHALL FALL WITHIN THE BUILDING ENVELOPE SHOWN.
- THE BUILDING SIZE, CONFIGURATION, AND ELEVATIONS SHOWN HEREON ARE SUGGESTED. MEISNER BREM CORP. IS TO BE NOTIFIED OF ANY REVISIONS TO SUCH. ADDITIONALLY, MEISNER BREM CORP. IS NOT RESPONSIBLE FOR CONFORMANCE TO ZONING REGULATIONS OR GROUND WATER OFFSET TO BASEMENT FLOOR.
- DESIGN IS NOT INTENDED FOR USE WITH A GARBAGE GRINDER. NO GARBAGE GRINDER IS ALLOWED.
- STREET ADDRESS IS 40 ELM STREET.
- SEPTIC TANK AND D-BOX INLET AND OUTLETS AND ALL UNUSED KNOCKOUTS TO BE SEALED WITH HYDRAULIC CEMENT AND ALL STRUCTURES SHALL BE WATERTIGHT.
- NO SURFACE WATER SUPPLIES AND NO PUBLIC WELLS EXIST WITHIN 400' OF THE PROPOSED SYSTEM.
- ALL SYSTEM JOINTS ARE TO BE WATERTIGHT.
- ALL OUTLETS OF THE DISTRIBUTION BOX ARE TO BE SAME ELEVATION AND THE BOX IS TO BE WATERTIGHT.
- FILL OVER THE SEPTIC TANK TO BE 9" MIN. TO 36" MAX.
- LOT TO BE SERVICED BY TOWN WATER AND PRIVATE ONSITE SEWAGE DISPOSAL.
- WETLAND AREAS DELINEATED IN THE AUTUMN OF 2021 BY STEVE ERIKSEN, NORSE ENVIRONMENTAL SERVICES, 92 MIDDLESEX ROAD #4, TYNGSBOROUGH, MA 01879
- BUILDING SEWER TO BE LAID ON A COMPACT, FIRM BASE AND IN A CONTINUOUS GRADE, IN A STRAIGHT LINE.
- SOIL COMPACTION IS REQUIRED BELOW THE DISTRIBUTION BOX.
- PROPERTY OWNER: ALVIN HING WONG 112 BOLTON ROAD HARVARD, MA 01451
- ALL SYSTEM COMPONENTS SHALL BE INSTALLED WITH MAGNETIC MARKING TAPE.
- ALL MANHOLES SHALL BE MINIMUM 24-INCH DIAMETER, MEDIUM DUTY CAST IRON FRAMES AND COVERS.
- ALL MANHOLES BROUGHT TO FINISHED GRADE SHALL BE SECURED AGAINST UNAUTHORIZED ACCESS.
- PLAN REFERENCE: "PLAN OF LAND IN NORTH READING, MASS. SCALE: 1"=40', DATED: OCT. 22, 1957. DANA F. PERKINS & SONS, INC. CIVIL ENGINEERS & SURVEYORS. RECORDED AT THE MIDDLESEX COUNTY REGISTRY OF DEEDS SO. DIST. AS PLAN NUMBER 1628 OF 1957.
- ALL WORK WITHIN WETLAND BUFFER ZONE IS SUBJECT TO APPROVAL BY THE NORTH READING CONSERVATION COMMISSION.
- A LOCAL UPGRADE APPROVAL IS REQUESTED PER 310 CMR 15.405(1)(c) TO REDUCE THE SYSTEM SETBACK FROM PROPERTY LINES FROM 10 FEET TO 5 FEET.

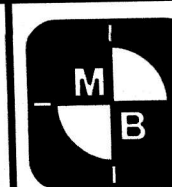
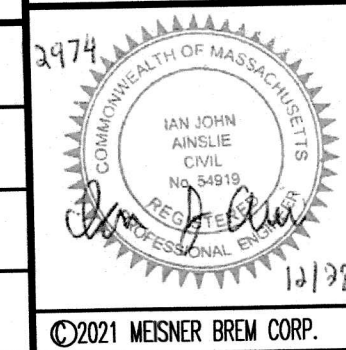
SUBSURFACE SEWAGE DISPOSAL SYSTEM AND NOTICE OF INTENT PLAN

40 ELM STREET - REPAIR

MAP 213/78 LOT 057
NORTH READING, MA 01864

PREPARED FOR:
ALVIN HING WONG
112 BOLTON ROAD
HARVARD, MA 01451

DECEMBER 27, 2021



MEISNER BREM CORPORATION
142 LITTLETON ROAD, STE. 16, WESTFORD, MA 01886 - (978) 892-1313
202 MAIN STREET, SALEM, NH 03079 - (603) 893-3301

DATE FILED: 12/9/21 DATE APPROVED: 12/9/21
DESIGNED BY: JAB DRAFTED BY: PDM APPROVED BY: JAB
JOB NUMBER: 2974 PLAN NO.: 2974-wong.dwg SHEET 1 OF 1